

Figure 1

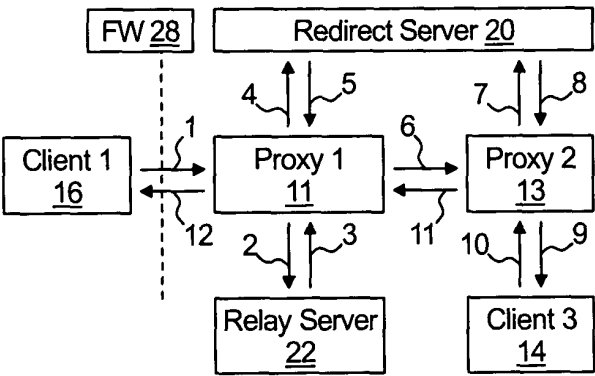


Figure 2a

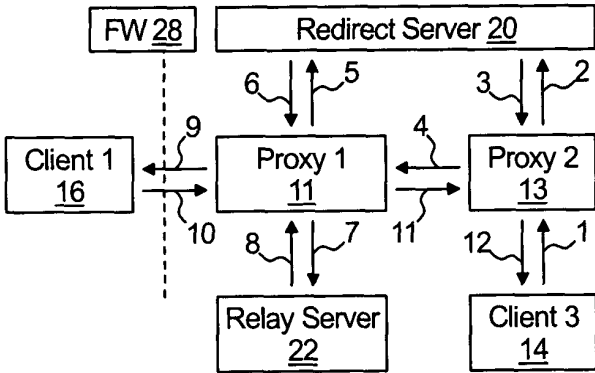


Figure 2b

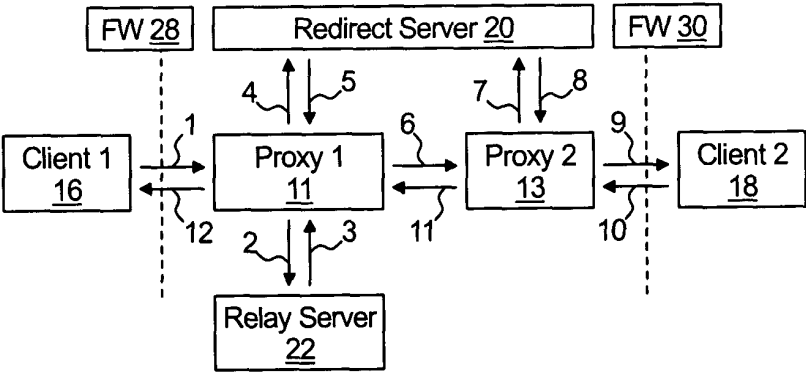


Figure 2c

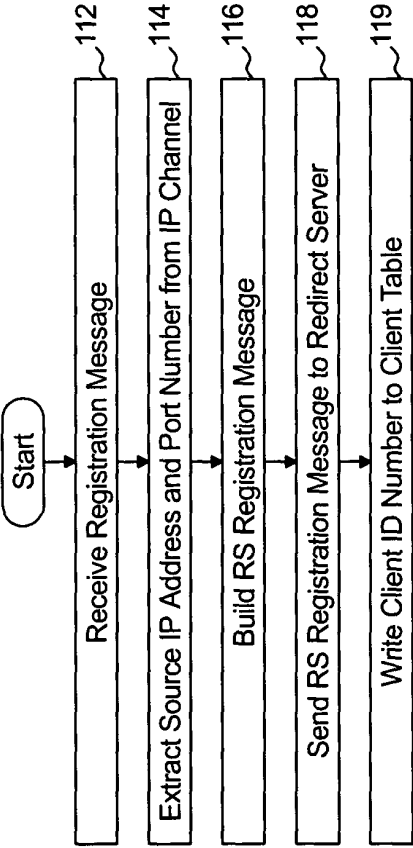


Figure 3a

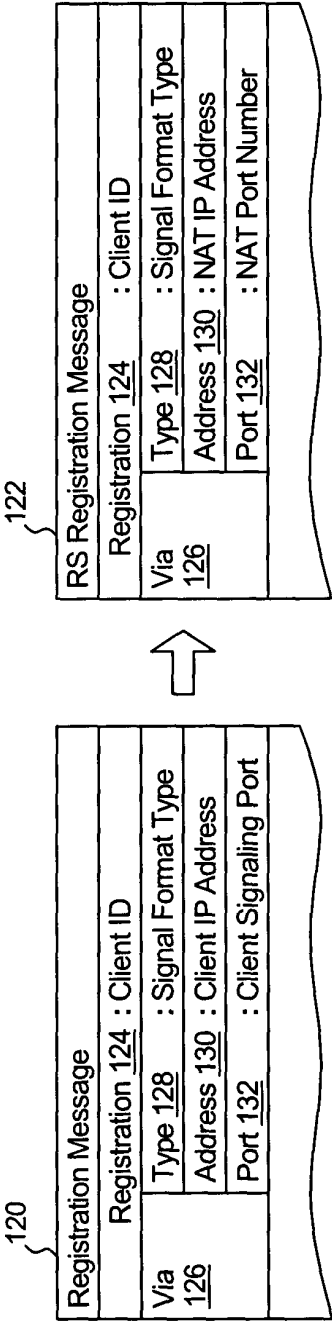


Figure 3b

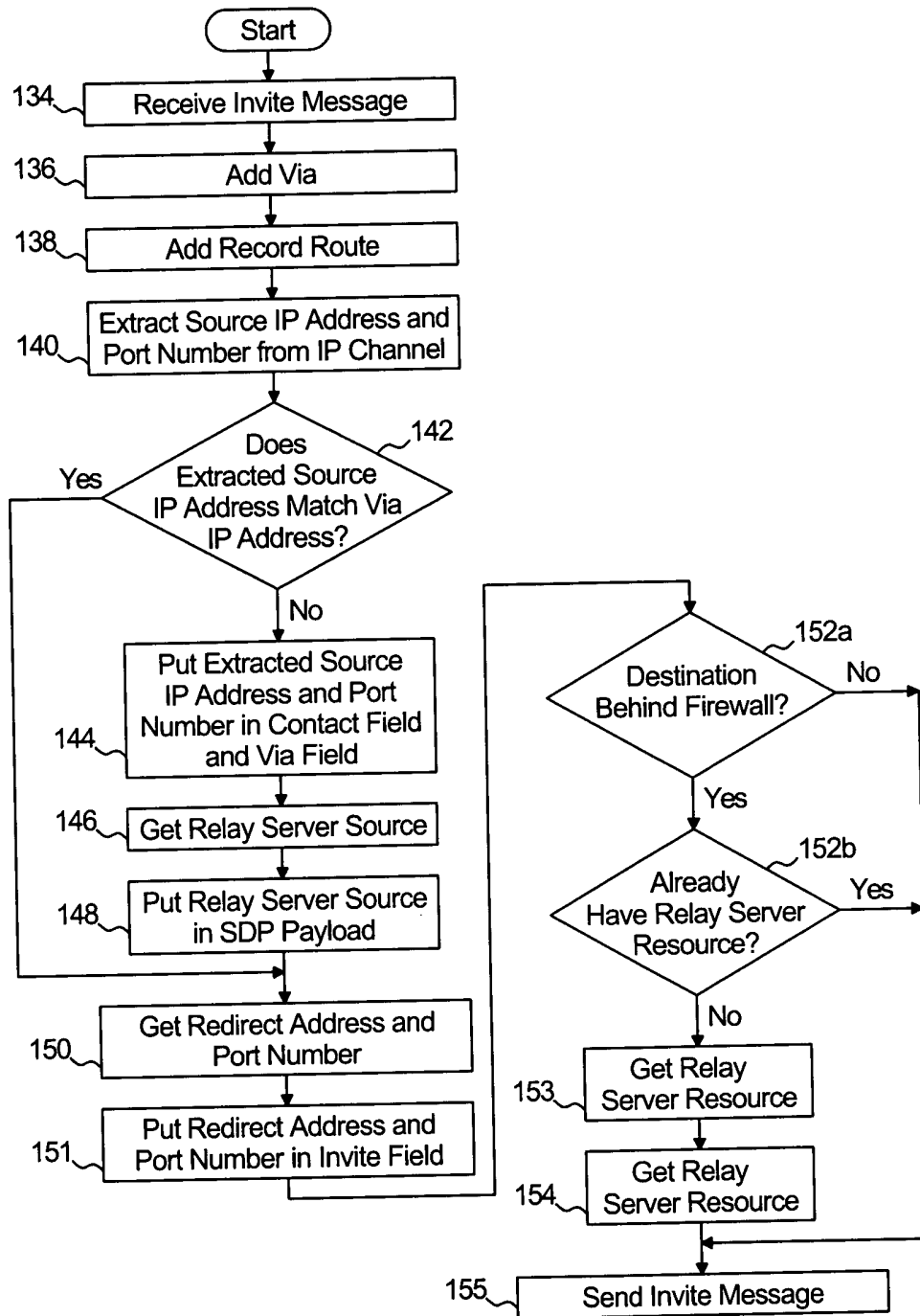


Figure 4a

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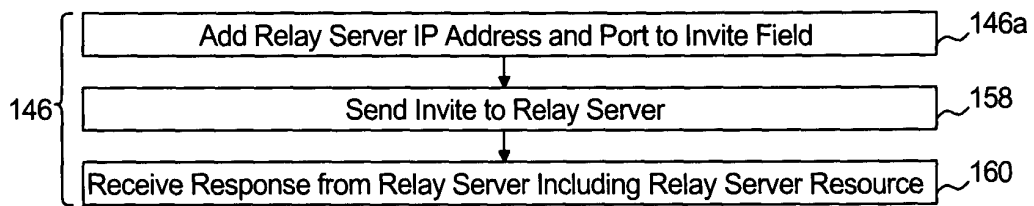


Figure 4b

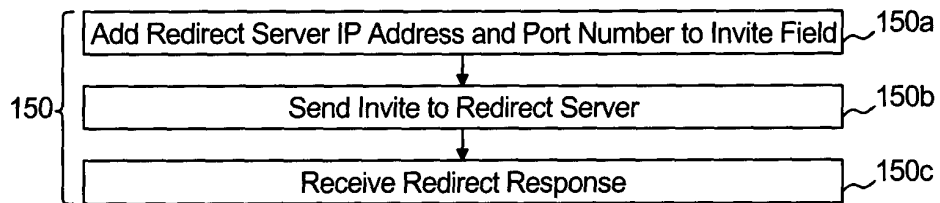


Figure 4c

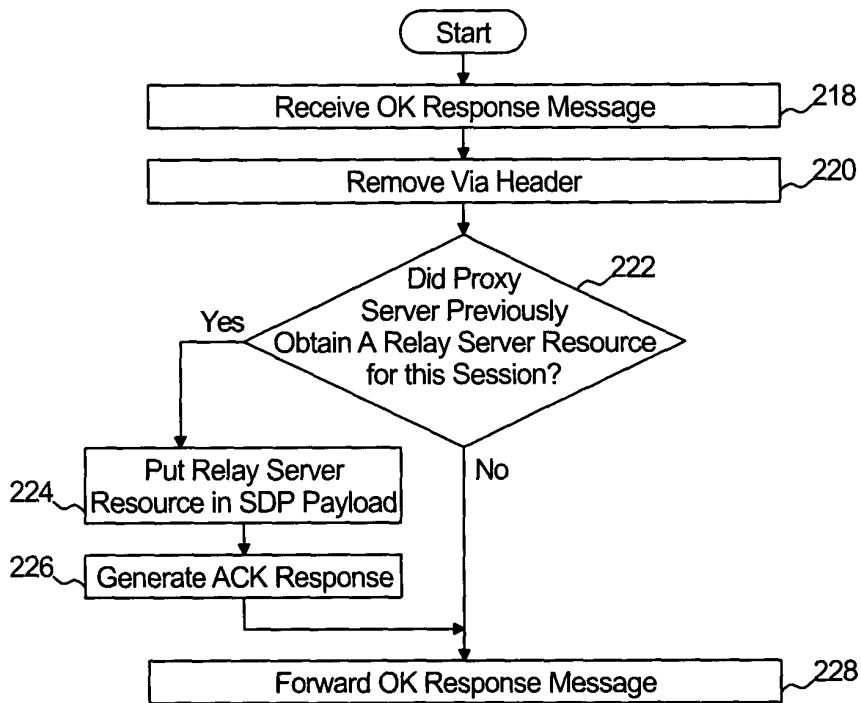


Figure 4d

Session Invite <u>156</u>	
Session ID <u>158</u> : Unique Session ID Number	
Invite <u>160</u>	ID <u>162</u> : Callee ID
	Address <u>164</u> : Proxy 1 IP Address
	Port <u>166</u> : Proxy 1 Signaling Port
Via <u>168</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Client IP Address
	Port <u>174</u> : Client Signaling Port
Contact <u>176</u>	Type <u>178</u> : Client ID
	Address <u>180</u> : Client IP Address
	Port <u>182</u> : Client Signaling Port
Other SIP Fields	
SDP Payload <u>184</u>	Client IP Address <u>186</u>
	Client Audio Port <u>188</u>
	Client Video Port <u>190</u>

Figure 5a

Forwarding Invite Message <u>192</u>	
Session ID <u>158</u> : Unique Session ID Number	
Invite <u>160</u>	ID <u>162</u> : Callee ID
	Address <u>164</u> : Redirect Address
	Port <u>166</u> : Redirect Port
Via <u>168a</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 1 IP Address
	Port <u>174</u> : Proxy 1 Signaling Port
Via <u>168</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Extracted IP Address
	Port <u>174</u> : Extracted Port
Contact <u>176</u>	ID <u>178</u> : Client ID
	Address <u>180</u> : Extracted IP Address
	Port <u>182</u> : Extracted Port
Record Route <u>177</u> : Proxy Information	
Other SIP Fields	
SDP Payload <u>184</u>	Relay Server IP Address <u>208</u>
	Relay Server Audio Port <u>209</u>
	Relay Server Video Port <u>210</u>

Figure 5b

Second Forwarding Invite Message <u>194</u>	
Session ID <u>158</u> : Unique Session ID Number	
Invite <u>160</u>	ID <u>162</u> : Callee ID
	Address <u>164</u> : Callee IP Address
	Port <u>166</u> : Callee Signaling Port
Via <u>168b</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 2 IP Address
	Port <u>174</u> : Proxy 2 Signaling Port
Via <u>168a</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 1 IP Address
	Port <u>174</u> : Proxy 1 Signaling Port
Via <u>168</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Extracted IP Address
	Port <u>174</u> : Extracted Port
Contact <u>176</u>	ID <u>178</u> : Client ID
	Address <u>180</u> : Extracted IP Address
	Port <u>182</u> : Extracted Port
Record Route <u>177</u> : Proxy Information	
Other SIP Fields	
SDP Payload <u>184</u>	Relay Server IP Address <u>208</u>
	Relay Server Audio Port <u>209</u>
	Relay Server Video Port <u>210</u>

Figure 5c

Forwarding Invite Message <u>246</u>	
Session ID <u>158</u> : Unique Session ID Number	
Invite <u>160</u>	ID <u>162</u> : Client 1 ID
	Address <u>164</u> : Redirect Address (Proxy 1)
	Port <u>166</u> : Redirect Port (Proxy 1)
Via <u>168a</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 2 IP Address
	Port <u>174</u> : Proxy 2 Signaling Port
Via <u>168</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Client 3 IP Address
	Port <u>174</u> : Client 3 Port
Contact <u>176</u>	ID <u>178</u> : Client ID
	Address <u>180</u> : Client 3 IP Address
	Port <u>182</u> : Client 3 Port
Record Route <u>177</u> : Proxy Information	
Other SIP Fields	
SDP Payload <u>184</u>	Client 3 IP Address <u>238</u>
	Client 3 Audio Port <u>240</u>
	Client 3 Video Port <u>242</u>

Figure 5e

Session Invite <u>236</u>	
Session ID <u>158</u> : Unique Session ID Number	
Invite <u>160</u>	ID <u>162</u> : Client 1 ID
	Address <u>164</u> : Proxy 2 IP Address
	Port <u>166</u> : Proxy 2 Signaling Port
Via <u>168</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Client 3 IP Address
	Port <u>174</u> : Client 3 Signaling Port
Contact <u>176</u>	Type <u>178</u> : Client 3 ID
	Address <u>180</u> : Client 3 IP Address
	Port <u>182</u> : Client 3 Signaling Port
Other SIP Fields	
SDP Payload <u>184</u>	Client 3 IP Address <u>238</u>
	Client 3 Audio Port <u>240</u>
	Client 3 Video Port <u>242</u>

Figure 5d

Second Forwarding Invite Message <u>248</u>	
Session ID <u>158</u> : Unique Session ID Number	
Invite <u>160</u>	ID <u>162</u> : Client 1 ID
	Address <u>164</u> : Redirect Address (NAT 1)
	Port <u>166</u> : Redirect Port (NAT 1)
Via <u>168b</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 1 IP Address
	Port <u>174</u> : Proxy 1 Signaling Port
Via <u>168a</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 2 IP Address
	Port <u>174</u> : Proxy 2 Signaling Port
Via <u>168</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Client 3 IP Address
	Port <u>174</u> : Client 3 Port
Contact <u>176</u>	ID <u>178</u> : Client ID
	Address <u>180</u> : Client 3 IP Address
	Port <u>182</u> : Client 3 Port
Record Route <u>177</u> : Proxy Information	
Other SIP Fields	
SDP Payload <u>184</u>	Relay Server IP Address <u>208</u>
	Relay Server Audio Port <u>209</u>
	Relay Server Video Port <u>210</u>

Figure 5f

Second Forwarding Invite Message <u>254</u>	
Session ID <u>158</u> : Unique Session ID Number	
Invite <u>160</u>	ID <u>162</u> : Client 1 ID
	Address <u>164</u> : Redirect Address (NAT 2)
	Port <u>166</u> : Redirect Port (NAT 2)
Via <u>168b</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 2 IP Address
	Port <u>174</u> : Proxy 2 Signaling Port
Via <u>168a</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 1 IP Address
	Port <u>174</u> : Proxy 1 Signaling Port
Via <u>168</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Client 3 IP Address
	Port <u>174</u> : Client 3 Port
Contact <u>176</u>	ID <u>178</u> : Client ID
	Address <u>180</u> : Client 3 IP Address
	Port <u>182</u> : Client 3 Port
Record Route <u>177</u> : Proxy Information	
Other SIP Fields	
SDP Payload <u>184</u>	Relay Server IP Address <u>208</u>
	Relay Server Audio Port <u>209</u>
	Relay Server Video Port <u>210</u>

Figure 5g

OK Response <u>230</u>	
Session ID <u>158</u> : Unique Session ID Number	
Via <u>168b</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 2 IP Address
	Port <u>174</u> : Proxy 2 Signaling Port
Via <u>168a</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 1 IP Address
	Port <u>174</u> : Proxy 1 Signaling Port
Via <u>168</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Extracted IP Address
	Port <u>174</u> : Extracted Port
Record Route <u>177</u> : Proxy Information	
Other SIP Fields	
SDP Payload <u>184</u>	Client IP Address <u>186</u>
	Client Audio Port <u>188</u>
	Client Video Port <u>190</u>

Figure 6a

OK Response <u>230</u>	
Session ID <u>158</u> : Unique Session ID Number	
Via <u>168a</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 1 IP Address
	Port <u>174</u> : Proxy 1 Signaling Port
Via <u>168</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Extracted IP Address
	Port <u>174</u> : Extracted Port
Record Route <u>177</u> : Proxy Information	
Other SIP Fields	
SDP Payload <u>184</u>	Client IP Address <u>186</u>
	Client Audio Port <u>188</u>
	Client Video Port <u>190</u>

Figure 6b

OK Response <u>230</u>	
Session ID <u>158</u> : Unique Session ID Number	
Via <u>168</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Extracted IP Address
	Port <u>174</u> : Extracted Port
Record Route <u>177</u> : Proxy Information	
Other SIP Fields	
SDP Payload <u>184</u>	Relay Server IP Address <u>208</u>
	Relay Server Audio Port <u>209</u>
	Relay Server Video Port <u>210</u>

Figure 6c

OK Response <u>250</u>	
Session ID <u>158</u> : Unique Session ID Number	
Via <u>168b</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 1 IP Address
	Port <u>174</u> : Proxy 1 Signaling Port
Via <u>168a</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 2 IP Address
	Port <u>174</u> : Proxy 2 Signaling Port
Via <u>168</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Client 3 IP Address
	Port <u>174</u> : Client 3 Port
Record Route <u>177</u> : Proxy Information	
Other SIP Fields	
SDP Payload <u>184</u>	Client IP Address <u>186</u>
	Client Audio Port <u>188</u>
	Client Video Port <u>190</u>

Figure 6d

Forwarding OK Response <u>252</u>	
Session ID <u>158</u> : Unique Session ID Number	
Via <u>168a</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 2 IP Address
	Port <u>174</u> : Proxy 2 Signaling Port
Via <u>168</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Client 3 IP Address
	Port <u>174</u> : Client 3 Port
Record Route <u>177</u> : Proxy Information	
Other SIP Fields	
SDP Payload <u>184</u>	Relay Server IP Address <u>208</u>
	Relay Server Audio Port <u>209</u>
	Relay Server Video Port <u>210</u>

Figure 6e

OK Response <u>256</u>	
Session ID <u>158</u> : Unique Session ID Number	
Via <u>168b</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 2 IP Address
	Port <u>174</u> : Proxy 2 Signaling Port
Via <u>168a</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 1 IP Address
	Port <u>174</u> : Proxy 1 Signaling Port
Via <u>168</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Extracted IP Address
	Port <u>174</u> : Extracted Signaling Port
Record Route <u>177</u> : Proxy Information	
Other SIP Fields	
SDP Payload <u>184</u>	Client IP Address <u>186</u>
	Client Audio Port <u>188</u>
	Client Video Port <u>190</u>

Figure 6f

Redirect Invite Message <u>214</u>	
Session ID <u>158</u> : Unique Session ID Number	
Invite <u>160</u>	ID <u>162</u> : Callee ID
	Address <u>164</u> : RS Address
	Port <u>166</u> : RS Port Number
Other SIP Fields	
SDP Payload <u>184</u>	

Figure 7a

Redirect Response <u>216</u>	
Session ID <u>158</u> : Unique Session ID Number	
Contact <u>176</u>	ID <u>178</u> : Callee ID
	Address <u>180</u> : Redirect Address
	Port <u>182</u> : Redirect Port

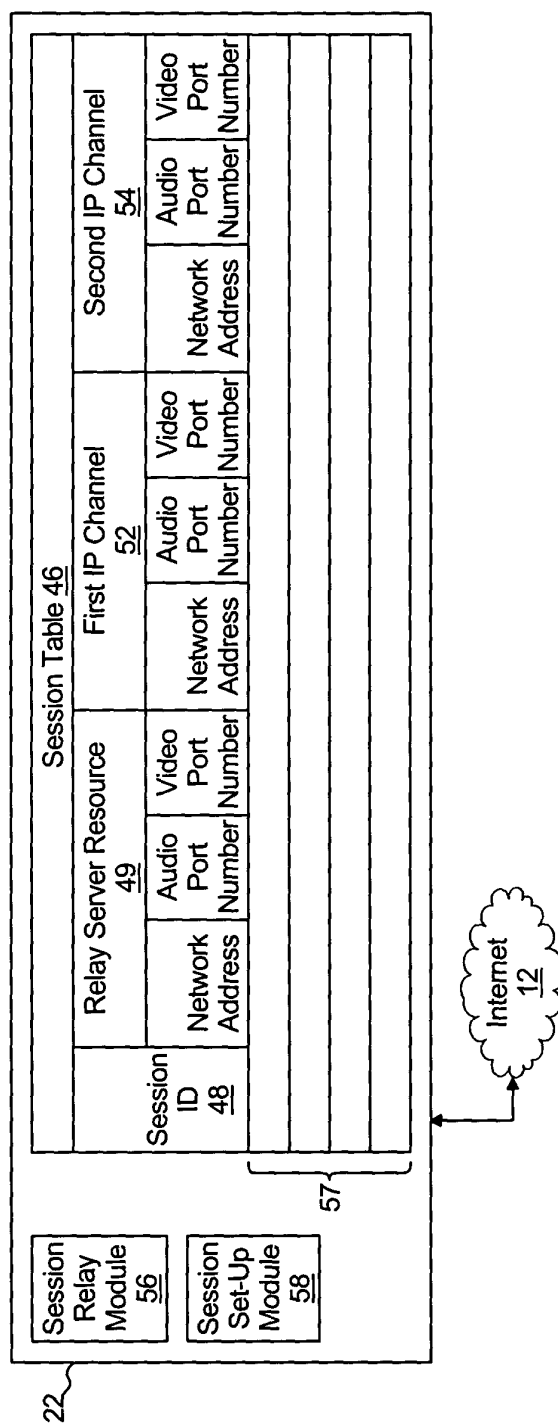
Figure 7b

Relay Server Invite <u>202</u>	
Session ID <u>158</u> : Unique Session ID Number	
Invite <u>160</u>	ID <u>162</u> : Callee ID
	Address <u>164</u> : RS IP Address
	Port <u>166</u> : RS Signaling Port
Via <u>168</u>	Type <u>170</u> : Signal Format Type
	Address <u>172</u> : Proxy 1 IP Address
	Port <u>174</u> : Proxy 1 Signaling Port
Record Route <u>177</u> : Proxy Information	
Other SIP Fields	
SDP Payload <u>184</u>	

Figure 8a

Relay Server Response <u>204</u>	
Session ID <u>158</u> : Unique Session ID Number	
Other SIP Fields	
SDP Payload <u>184</u>	Relay Server IP Address <u>208</u>
	Relay Server Audio Port <u>209</u>
	Relay Server Video Port <u>210</u>

Figure 8b



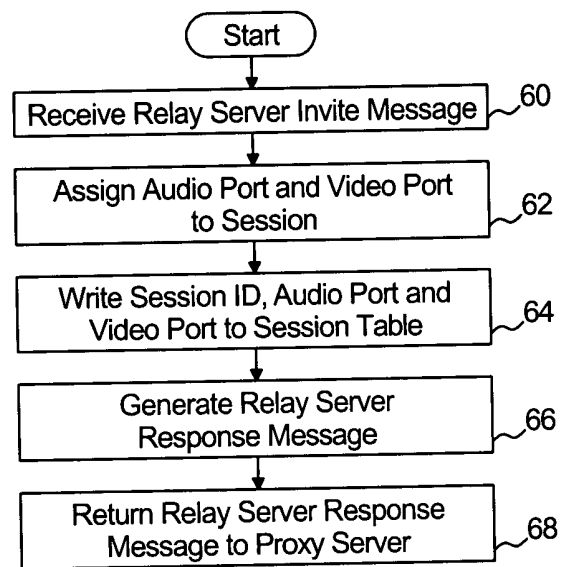


Figure 10

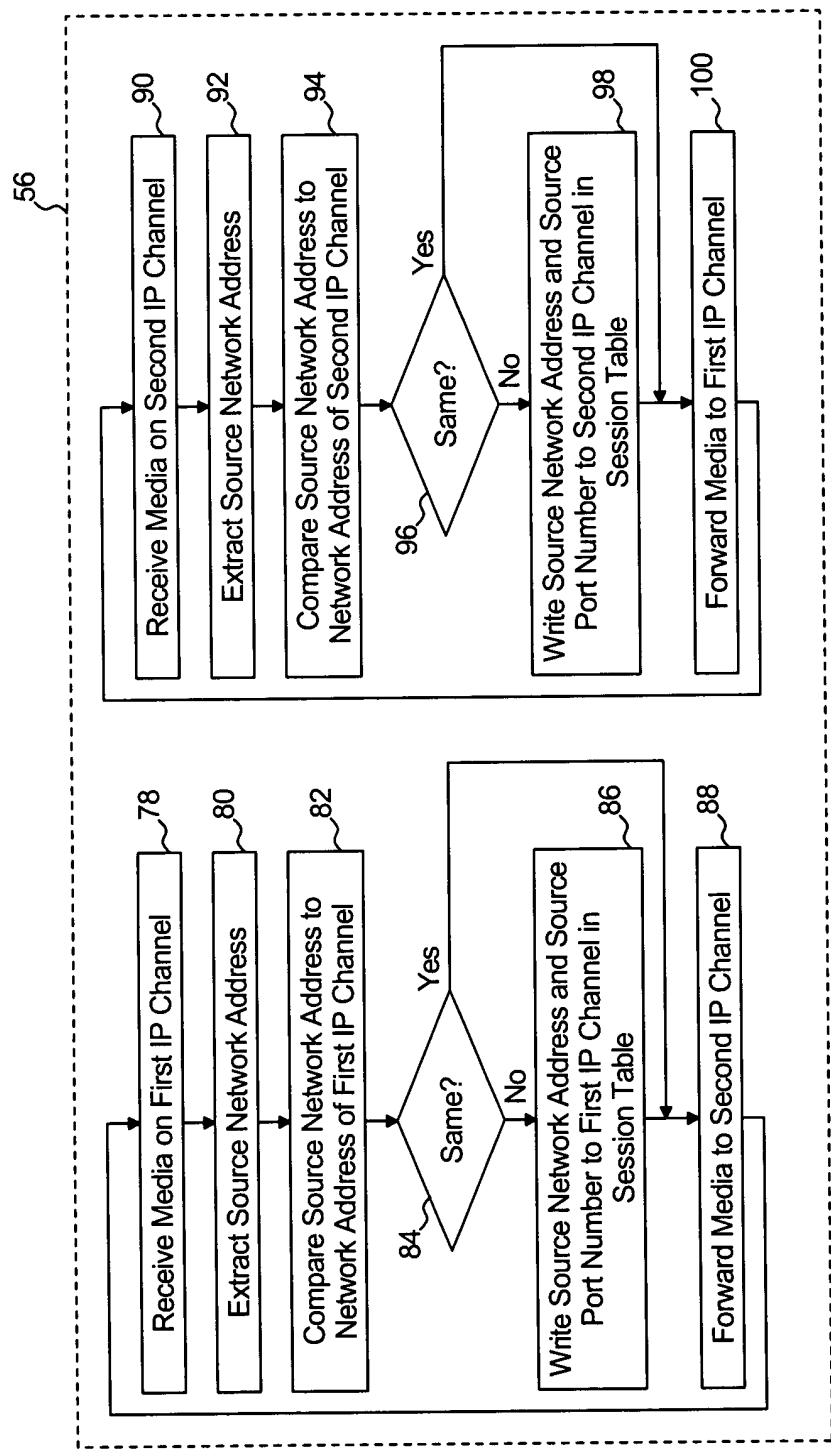


Figure 11